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APPLICANT :

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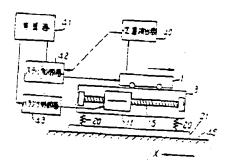
KOMIYAMA SHIGERU;

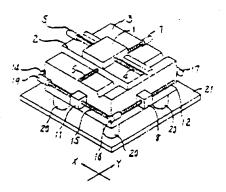
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TITLE

STAGE DEVICE





ABSTRACT :

PURPOSE: To improve the positioning accuracy by providing a movable member which can move relatively to a substrate, an arithmetic means which calculates the driving conditions of the movable member, and a control means which performs control according to the driving conditions found by the arithmetic means.

CONSTITUTION: The stage device has a mechanism which moves a stage 1 in an X direction and a mechanism which moves a stage 2 in a Y direction. Four balancer weights 8 and 11, etc., are fitted corresponding to moving directions, etc., so as to cancel a reaction force and moment operating on a base board 3 as the stages 1 and 2 move. The stages 1 and 2 move on their tracks in the X and Y directions and the coordinate positions of the stages 1 and 2 are monitored by a position detector 40 and fed back to a stage controller 42. A computing element 4 finds the reaction force and moment operating on the base board 3 according to the positions and movement states of the stages 1 and 2 outputted by a controller 42 according to the detection signal from the detector 40. Consequently, the best driving conditions of the balancer weights 8, 11, etc., are calculated and a balancer controller 43 controls the movement of the balancer weights 8 and 11, etc.

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